



A PROGRAM OF TCEQ

11th State of the Bay Symposium

“2020 Vision for Galveston Bay”



January 22-23, 2020

Day One: Wednesday, January 22, 2020

7:30-8:30 **Registration**

8:30-10:00 **Day One Opening Plenary Session - Exhibit Hall C**

- Welcome by Galveston Bay Estuary Program Manager, Lisa M. Marshall
- Regional Administrator, U.S. Environmental Protection Agency Region 6, Ken McQueen
- Presentation of Resolutions by Galveston Bay Council Member, Lori Traweek
- Texas Commission on Environmental Quality Commissioner, Emily Lindley
- State of the Bay Presentation by Houston Advanced Research Center President, Lisa Gonzalez

10:15-10:30 **Morning Break - Opportunity to network and visit the exhibits and poster presentations**

10:30–12:00 Concurrent Session I

Room A1 - Public Awareness and Action

- *The Galveston Bay Report Card: Five Years of Cultivating Action* Erin Kinney, Houston Advanced Research Center
- *The Galveston Bay Foundation's Oyster Gardening Program and Its Impact on Volunteers, the Community, and the Bay* Michael Niebuhr, Galveston Bay Foundation
- *Increasing Awareness Through Awards Programs* Andrea Tantillo, Houston-Galveston Area Council

Room A2 - Oyster Restoration and Regulation

Restoration efforts are underway. This session will focus on the current state of the resource as well as address public policy and on the ground efforts.

- *Oyster Restoration in Galveston Bay* Bill Rodney, Texas Parks and Wildlife Department
- *From Restaurants to Reefs - The Galveston Bay Foundation's Oyster Shell Recycling Program Past, Present, and Future* Haille Leija, Galveston Bay Foundation
- *The State of Galveston Bay Oysters from a Manager's Perspective* Emma Clarkson and Christine Jensen, Texas Parks and Wildlife Department
- *The Proposed Design of the Oyster Mariculture Program* Emma Clarkson, Texas Parks and Wildlife Department

Room A3 - Coordinated Monitoring in the Wake of Hurricane Harvey Lightning Round

This session will focus on data collection efforts organized and executed immediately following Hurricane Harvey and the lessons learned from scientific and logistical standpoints that can be applied to future disasters. A Lightning Round is a time-limited and slide-limited presentation format. This fast-paced program is

intended to focus on the heart of the issue and engage the audience.

Facilitated by Stephanie Glenn, Houston Advanced Research Center

Panelists include:

- Jamie Steichen, Texas A&M University at Galveston
- Caimee Schoenbaechler, Texas Water Development Board
- Kristen Thyng, Texas A&M University at Galveston
- Kathryn E. F. Shamberger, Texas A&M University at Galveston
- Hui Liu, Texas A&M University at Galveston
- Gerardo Gold-Bouchot, Texas A&M University at Galveston
- George Guillen, Environmental Institute of Houston, University of Houston Clear Lake
- Michael T. Lee, U.S. Geological Survey

Room A4 – Emerging Contaminants in an Estuarine Environment

- *Toxic and Nutrient Metals in Galveston Bay: A Quarterly Time-Series 2017-2019*
Jessica Fitzsimmons, Texas A&M University at Galveston
- *The Evaluation of Legacy and Emerging Pollutants in Galveston Bay*
David Hala, Texas A&M University at Galveston
- *Distribution of Per-and Polyfluorinated Alkyl Substances (PFAS) in Galveston Bay, Texas*
Yina Liu, Texas A&M University at Galveston
- *Role of Extreme Weather Events, Pollutants and Freshwater Inflows on Phytoplankton Community Composition in Galveston Bay, Texas*
Antonietta Quigg, Texas A&M University at Galveston
- *Distribution of Halogenated Volatile Organic Compounds (VOCs) in Galveston Bay, Texas*

12:00–1:15 **Luncheon – Exhibit Hall C**

- Keynote Speaker - Judy Braus, North American Association for Environmental Education

1:30–3:00 **Concurrent Session II**

Room A1 - Galveston Bay Watershed Trash Action Plan:
Partners in Litter Prevention (PLP)

A lightning round presentation session that highlights the formation of PLP, the purpose and goals of the Action Plan, and efforts of PLP stakeholders across the three goals of the Action Plan in the lower Galveston Bay watershed. A Lightning Round is a time-limited and slide-limited presentation format. This fast-paced program is intended to focus on the heart of the issue and engage the audience.

Facilitated by Erin Kinney, Houston Advanced Research Center

Panelists include:

- *Trash Tracker and Pledge on www.Donttrashagoodthing.org*
Amanda Hackney, Black Cat GIS and Biological Services
- *Bayou Preservation Association's Partnership with the City of Houston's Bureau of Pollution Control and Prevention, Houston Health Department on their Community Health Improvement Plan (CHIP) Efforts to Decrease Nonpoint Source Pollution*
Sarah P. Bernhardt, Bayou Preservation Association
- *Developing and Implementing a Marine Debris Action Plan for Galveston*
Karla Klay, Artist Boat
- *Plastic Pollution Prevention Partnership Update*
Stennie Meadours, Galveston Bay Chapter – Texas Master Naturalist
- *Trash Bash*
Kendall Guidroz, Houston-Galveston Area Council
- *Galveston Bay Regional Litter and Marine Debris Database*
Erin Kinney

- *Macroplastic Citizen Science Monitoring Program for Galveston Bay*
Nick Ellis, Galveston Bay Foundation

Room A2 – Species Monitoring and Research – Reptiles and Mammals

- *Monitoring Bottlenose Dolphins in Galveston Bay, Texas*
Kristi Fazioli, University of Houston Clear Lake
- *Status of Galveston Bay Terrapin Populations and Potential Threats to the Species*
George Guillen, Environmental Institute of Houston, University of Houston Clear Lake
- *Movement Patterns and Habitat Use of Sea Turtles on the Upper Texas Coast: Protecting and Sustaining Living Resources*
Chris Marshall, Texas A&M University at Galveston
- *Impact of Salinization Events on American Alligators*
Lene Petersen, Texas A&M University at Galveston

Room A3 – Soil Health Management for Crop, Livestock, and Wildlife

- *Coastal Zone Soil Survey in Texas*
Jon Weidenfeld, Natural Resources Conservation Service
- *Activities with Coastal Conservation and Aquaculture*
Robert Ziehr, Natural Resources Conservation Service
- *Soil Health Activities Along the Coast*
Alan Stahnke, Natural Resources Conservation Service
- *Building Healthy Soils in a Backyard*
Brian Koch, Texas State Soil and Water Conservation Board

Room A4 – Coastal Restoration and Resilience

- *Large Scale Coastal Restoration Concepts for the Texas Upper Coast: How Much Sediment Is Needed*
Carla Kartman and Juan Moya, Texas General Land Office, Coastal Planning Program

- *Coastal Texas Protection and Restoration Feasibility Study: Large Scale Ecosystem Restoration Along the Texas Coast*
Dianna Ramirez, Texas General Land Office
- *Overview of the 2019 Texas Coastal Resiliency Master Plan*
Tony Williams, Texas General Land Office, Coastal Resources

3:00–3:45 **Poster Presentation Session and Afternoon Break**

3:45–5:00 **Concurrent Session III**

Room A1 - Behavior Change for the Bay - Challenges, Successes, and Moving Forward Together

- *Fishing Line Recycling Campaign*
Cynthia Clevenger, Galveston Bay Estuary Program
- *Galveston Bay Report Card*
T’Noya Thompson, North American Association for Environmental Education
- *Breaking Down Barriers in Environmental Education*
Cindy Wilems, Galveston Bay Foundation

Room A2 - Species Monitoring and Research - Invertebrates and Fish

- *Predator and Salinity Effects on Invertebrate Communities in Galveston Bay Marinas*
Laura Jurgens, Texas A&M University at Galveston
- *Understanding the Ecology of Atlantic Rangia in Galveston Bay: Deciphering the Role of Freshwater Inflows*
Mohamoud Omar, University of Houston Clear Lake
- *Monitoring the Movements and Habitat Use Patterns of Coastal Fishes in Galveston Bay, Texas Using Acoustic Telemetry*
Mariah Livernois, Texas A&M University at Galveston
- *The Seawater Carbonate Chemistry of Galveston Bay and Implications for Oyster Reef Health*
Tacey Hicks, Texas A&M University at Galveston

Room A3 - Hurricane Harvey Marine Debris Response Panel

Large debris cleanup after Hurricane Harvey was a multiagency effort across federal and state offices. Panelists in this session will share information about those efforts and the communication strategies that have been developed since Harvey in preparation of the next event.

- U.S. Coast Guard - Sarah K. Rousseau
- U.S. Army Corps of Engineers Galveston District - Tricia Campbell
- Texas General Land Office - Tara Whittle/Christina Solis
- National Oceanic and Atmospheric Administration Texas Marine Debris Emergency Response Guide - Caitlin Wessel
- Galveston Bay Foundation Community Response - Emily Ford

Room A4 - Tools and Applications

- *GIS Resources for The Mappily Challenged: Tools, Programs and Field Data Collection Apps for Beginners*
Amanda Hackney, Black Cat GIS and Biological Services
- *Mumps (Multi-species, Multinutrient Plankton Model) - A Modeling Tool for the Prediction of Algal Biomass and Dissolved Oxygen in Texas Bays*
Daniel Roelke, Texas A&M University at Galveston
- *A New Approach to Functionally Assess Estuarine Fish Communities in Response to Hydrologic Change*
Lisa Gonzalez, Houston Advanced Research Center
- *Ecosystem Health Assessment for the Coastal Gulf of Mexico: Opportunities for Downscaling to Galveston Bay*
Jenny Oakley, University of Houston Clear Lake
- *Eco-Logical: Linking Environmental Resources and Transportation Planning for Sustainable Development*
Thushara Ranatunga, Houston-Galveston Area Council

5:00

End of Day One

5:00 Evening Reception in Floral Ballroom A

Day Two: Thursday, January 23, 2020

7:30–8:30 Morning Networking

8:30–10:00 Day 2 Opening Plenary Session – Exhibit Hall C

- Welcome by Galveston Bay Council Chair, Glenn Clingenpeel
- Texas Commission on Environmental Quality Executive Director, Toby Baker
- Update on the Deepwater Horizon Restoration Funds for Texas
 - *Accomplishments and Upcoming Opportunities, by the Bucket*
Toby Baker, Executive Director, Texas Commission on Environmental Quality and Governor Abbott's appointee to the RESTORE Council
 - *Working with the National Fish and Wildlife Foundation Gulf Environmental Benefit Fund in Coastal Texas*
Robin Riechers, Coastal Fisheries Division Director, Texas Parks and Wildlife Department
 - *Natural Resource Damage Assessment and Restoration for the Deepwater Horizon Oil Spill by the Texas Trustee Implementation Group*
David Green, Deputy Director, Coastal Resources Division, Texas General Land Office
 - *Summary of Deepwater Horizon Related Actions Benefiting the Galveston Bay Ecosystem*
Jamie Schubert, Marine Habitat Resource Specialist, National Oceanic and Atmospheric Administration Restoration Center

10:15–10:30 Morning Break – Opportunity to network and visit the exhibits and poster presentations

10:30–12:00 Concurrent Session IV

Room A1 – Engaging Communities in Citizen Science

- *Texas Estuarine Resource Network: Citizen Science in Conservation*
Alexis Baldera, Audubon Texas Coastal Program
- *Community Benefits of a Citizen Science Water Monitoring Program*
Nick Ellis, Galveston Bay Foundation
- *Chasing Flood Waters on the Lower Trinity River*
Tom Douglas, Citizen

Room A2 - Habitat Restoration and Enhancement for Birds

- *Happy Homes for Nesting Waterbirds*
David Buzan, Freese and Nichols, Inc.
- *Protecting Public Beaches and Nature Preserved to Stabilize Imperiled Coastal Bird Populations in Coastal Texas*
Kristen Vale, American Bird Conservancy
- *New Technologies for Monitoring Birds in the Galveston Bay Watershed*
Anna Vallery, Houston Audubon
- *High Island Rookery Resiliency and Enhancement*
Peter Deichmann, Houston Audubon

Room A3 - Research and Management Techniques to Protect and Sustain Living Resources

- *Houston Parks and Recreation Department's Riparian Restoration Initiative*
Kelli Ondracek, City of Houston Parks and Recreation Department
- *Don't Throw it Away: Beneficial Use of Vegetative Debris After a Storm*
Tara Whittle, Texas General Land Office
- *Should Galveston Bay Wetland Management Priorities and Strategies Change in Response to Increasing Mangrove Cover?*
Anna Armitage, Texas A&M University at Galveston

- *The Age of Restoration: Impacts on Freshwater Wetland Species Composition and Richness*
Colleen Ulibarri, Texas A&M AgriLife Extension Service

Room A4 - Funding and Financing Projects

This panel will focus on identifying non-traditional or emerging funding sources, leveraging efforts with related programs, and examining success stories in sustained funding. Panelists will give short introductions to their efforts and a case study of a unique funding challenge or achievement. The panel will then discuss questions related to funding as raised by the moderators or audience. The panelists will represent local government, regional planners, nonprofits, and/or other related participants.

Facilitated by Justin Bower, Houston-Galveston Area Council

12:00–1:15 **Luncheon - Exhibit Hall C**
Student Conservation Association - Youth Leadership in Conservation

1:30–3:00 **Concurrent Session V**

Room A1 - Environmental Education in the Watershed Panel

Having an environmentally aware community is essential for protecting Galveston Bay. Both formal and informal educators are working toward this goal; however, communities need easy, multidimensional access to quality local watershed programs. This panel discussion will focus on the Houston Environmental Resources for Educators (HERE) initiative and local programs that engage under-represented and diverse communities.

Facilitated by Alicia Mein-Johnson, Citizens Environmental Coalition

Room A2 - Invasive Plant Species Management

- *The Quiet Invasion: A Guide to Invasive Species of the Galveston Bay Area*
Erin Kinney, Houston Advanced Research Center
- *Removal and Management of Chinese Tallow and Brazilian Peppertree*

Matt Singer, Galveston Bay Foundation

- *Houston Audubon's Invasive Species Management in High Island*
Peter Deichmann, Houston Audubon
- *Stream Corridor Restoration: Techniques in Exotic Invasive Plant Species Removal*
Sarah P. Bernhardt/Eric Ruckstuhl, Bayou Preservation Association

Room A3 – Water Quality and Hydrology

- *The Impacts of Assimilative Capacity of Reservoirs on Coastal Inflows*
Ryan Bare, Houston Advanced Research Center
- *Monitoring Freshwater Inflow and Nutrient and Sediment Loading into Galveston Bay*
Zulimar Lucena, U.S. Geological Survey
- *The Changing Hydrology of The Trinity River*
Webster Mangham, Trinity River Authority of Texas

Room A4 – Water Quality and Species Response After Extreme Weather Events

- *Changes in the Water Quality and Microbial Community in Galveston Bay Following the Extreme Flooding Event Produced by Hurricane Harvey*
Jamie Steichen, Texas A&M University at Galveston
- *Dramatic Response and Slow Salinity Recovery of Galveston Bay to Hurricane Harvey: Observation and Modelling*
Keyong Park, Texas A&M University at Galveston
- *Resilience of Estuarine Pelagic Communities to Catastrophic Natural Disasters*
Hui Liu, Texas A&M University at Galveston
- *Cyclone Driven Sediment Flux Within an Urban Estuary: Impact of Hurricane Harvey on Galveston Bay*
Tim Dellapenna, Texas A&M University at Galveston

3:00-3:30 **Afternoon Break – Opportunity to network and visit the exhibits and poster presentations**

3:30-5:00 **Concurrent session VI**

Room A1 - Engaging the Public Through Unique Partnerships

- *Community-Centered Approaches to Boater Waste Education*
Ted Driscoll, Galveston Bay Foundation
- *Oyster Gardening - A Partnership of Schools, Nonprofits, and Community*
Maureen Nolan-Wilde, Galveston Bay Chapter-Texas Master Naturalist
- *The Great Monofilament Fishing Line Recycling Adventure*
Rick Becker, Galveston Bay Chapter-Texas Master Naturalist

Room A2 – Watershed Based Planning

- *Making the Watershed Connection for Healthy Stream Corridors*
Sarah P. Bernhardt, Bayou Preservation Association
- *Trees for Water: Integrating Forestry Practices in Watershed Planning*
Justin Bower, Houston-Galveston Area Council
- *Utilizing a Basin-Wide Approach to Address Water Quality Impairments*
Steven Johnston, Houston-Galveston Area Council
- *Headwaters to Baywaters (H2b)*
Mary Anne Piacentini, Katie Prairie Conservancy
- *Adaptive Change Management in Environmental Planning*
Todd Running, Houston-Advanced Area Council

Room A3 – Promoting Beneficial Use of Dredged Material

- *Beneficial Use of Dredge Material for Restoration of Pierce Marsh, Galveston Bay, Texas*
Philip Smith, Galveston Bay Foundation

- *Planning for Beneficial Use of Dredged Material for Marsh Restoration on the Texas Coast*
Todd Merendino, Ducks Unlimited
- *Beneficial Use of Dredged Material at Atkinson Island*
David Casebeer, Port Houston

Room A4 - Hazard Mitigation and Planning

- *Local Community Planning for Resiliency and Mitigation with Texas Citizen Planner*
Celina Gauthier-Lowry, Texas A&M AgriLife Extension Service
- *Green Infrastructure for Texas: Managing Stormwater Across the Landscape Spectrum*
Charriss York, Texas A&M AgriLife Extension Service
- *Stormwater Treatment Wetland Success Stories and Where We Go from Here*
Christina Taylor, Texas A&M AgriLife Extension Service

5:00

Symposium adjourn